SMC-00-863

Subject:

GN2813

2002

January 9

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To: Commissioner of Patents and Trademarks

Washington, D.C.

Fr: George O. Saile, Reg. No. 19,572

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Poughkeepsie, N.Y. 12603

Serial No. 09/998,787 10/31/01

Tien-I Bao, Jeng Shwang-Ming, Syun-Ming Jang, Chen-Hua Yu,

Kuen-Chyr Lee

A SOLUTION TO THE PROBLEM OF COPPE

HILLOCKS

Grp. Art Unit: 2812

INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation In An Application.

The following Patents and/or Publications are submitted to comply with the duty of disclosure under CFR 1.97-1.99 and 37 CFR 1.56. Copies of each document is included herewith.

## CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on January 27, 2002.

Stephen B. Ackerman, Reg.# 37761

Signature/Date

TSMC-00-863

- U.S. Patent 5,714,418 to Bai et al., "Diffusion Barrier for Electrical Interconnects in an Integrated Circuit," discloses a capping layer of nitride over copper, then an oxide layer.
- U.S. Patent 5,612,254 to Mu et al., "Methods of Forming an Interconnect on a Semiconductor Substrate," discusses a silicon nitride layer over copper.
- U.S. Patent 5,654,232 to Gardner, "Wetting Layer Sidewalls to Promote Copper Reflow into Grooves," teaches a copper damascene process.
- U.S. Patent 5,589,233 to Law et al., "Single Chamber CVD Process for Thin Film Transistors," discloses a chamber precoat process.

Sincerely

Stephen B. Ackerman,

Reg. No. 37761